California Department of Industrial Relations
Office of Policy, Research and Legislation

Division of Occupational Safety and Health

Findings from the

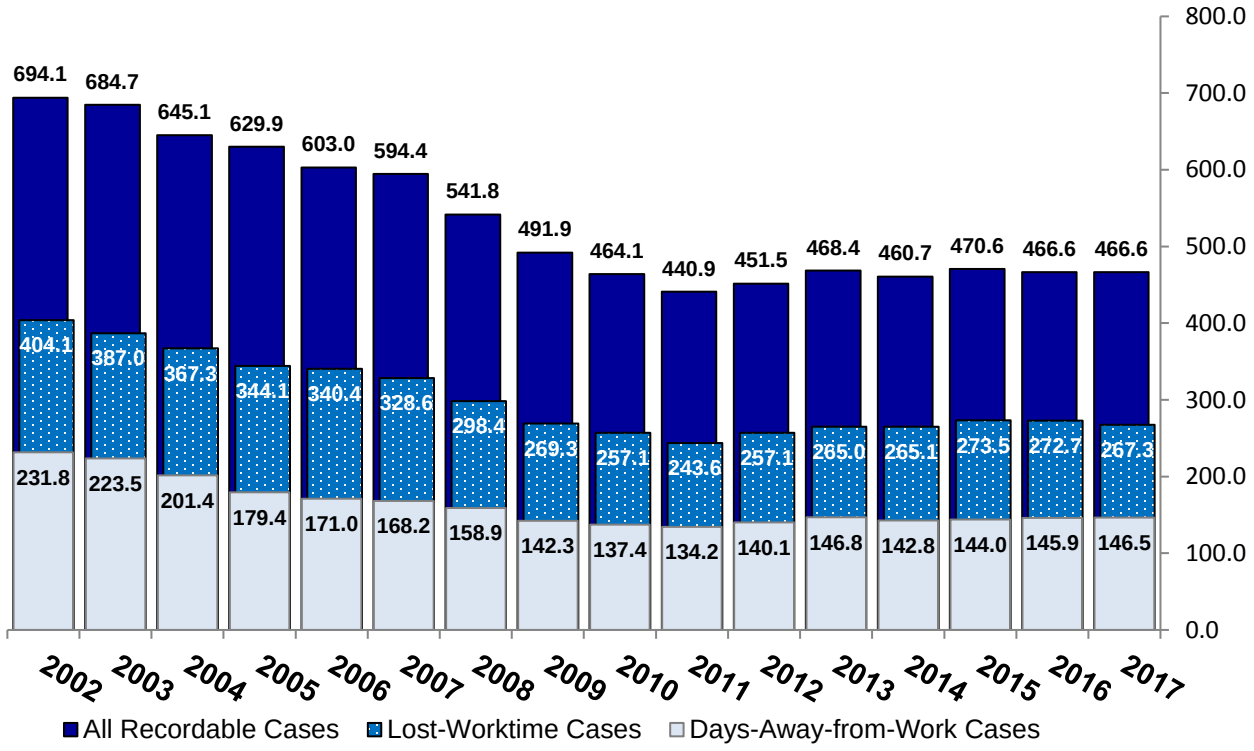
2017 California Survey of Occupational Injuries and Illnesses (SOII)

Contents

Overview

This report presents highlights from the California Survey of Occupation Injuries and Illnesses (SOII) for 2017 conducted by the U.S. Bureau of Labor Statistics (BLS) and the California Department of Industrial Relations (DIR).[1] In 2017, the number of California cases of injuries and illnesses remained stable overall. Private and public sector employers in California reported 466,600 nonfatal workplace injuries and illnesses. (Chart 1.)

CHART 1. Nonfatal Occupational Injuries and Illnesses (in Thousands), California, All Industry Sectors, 2002–2017



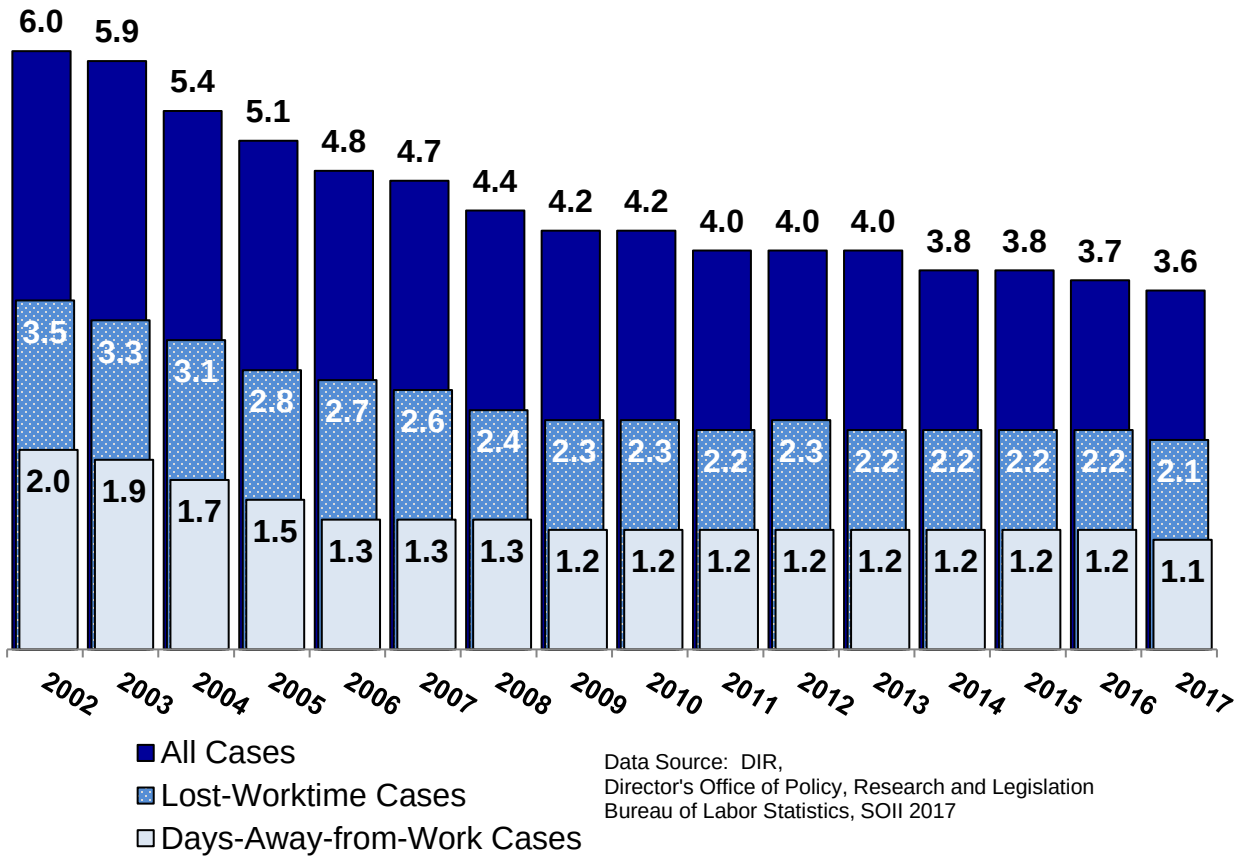
Data Source: DIR, Director's Office of Policy, Research and Legislation

Bureau of Labor Statistics, SOII 2017

Of the 466,600 recordable cases of occupational injury and illness estimated for California in 2017, there were 267,300 DART (lost worktime) cases and 146,500 DAFW cases.

[1] Estimates for the California SOII are derived from a statistical sample of employers in the state. See Appendix: SOII Methodology.

CHART 2. Incidence of Nonfatal Occupational Injuries and Illnesses (Cases per 100 FTEs) in California, All Industry Sectors, 2002–2017



California's overall incidence rate of nonfatal occupational injuries and illnesses in 2017 is estimated by BLS to be 3.6 cases per 100 full-time employees (FTEs). In addition, the statewide all-industry rate of more serious cases leading to days away from work (DAFW cases) was at 1.1 injuries per 100 FTEs in 2017 (see Chart 2). [2]

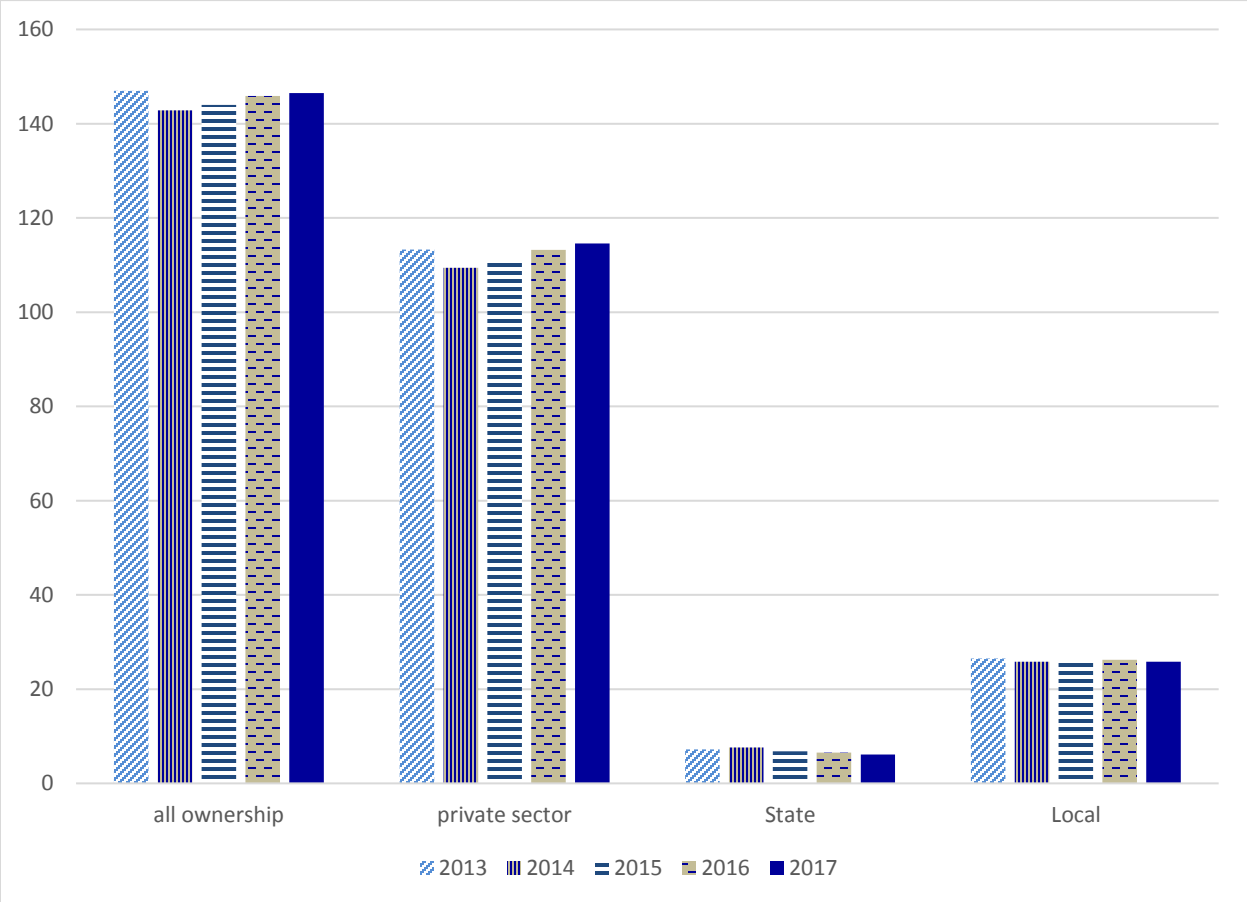
[2] For 2016, the overall incidence was reported as 3.7 cases per 100 workers. According to BLS, the changes in the incidence rate of injuries and illnesses for all ownerships in California from 2016 to 2017 were statistically within a margin of error for the survey. Therefore, while nominally the rate appears lower, the difference is not significant and the 2017 rate should not be considered to be lower than 2016. This also applies to the rates for Lost-Worktime cases and Days Away from Work cases.

Injuries and Illnesses Involving Days Away from Work

Published SOII statistics include detailed findings for DAFW cases, which are presented in this report.[3] All findings presented are derived from the data collected by SOII for California in 2017.

Occupational Injuries and illnesses occur in private industry and in government. Small changes occurred in the estimates of DAFW cases by sector between 2013 and 2017. Consistently, approximately three-quarters of reported DAFW injuries and illnesses occurred in private sector employment, while state and local government accounted for approximately 5 percent and 18 percent of the total, respectively (see Chart 3).

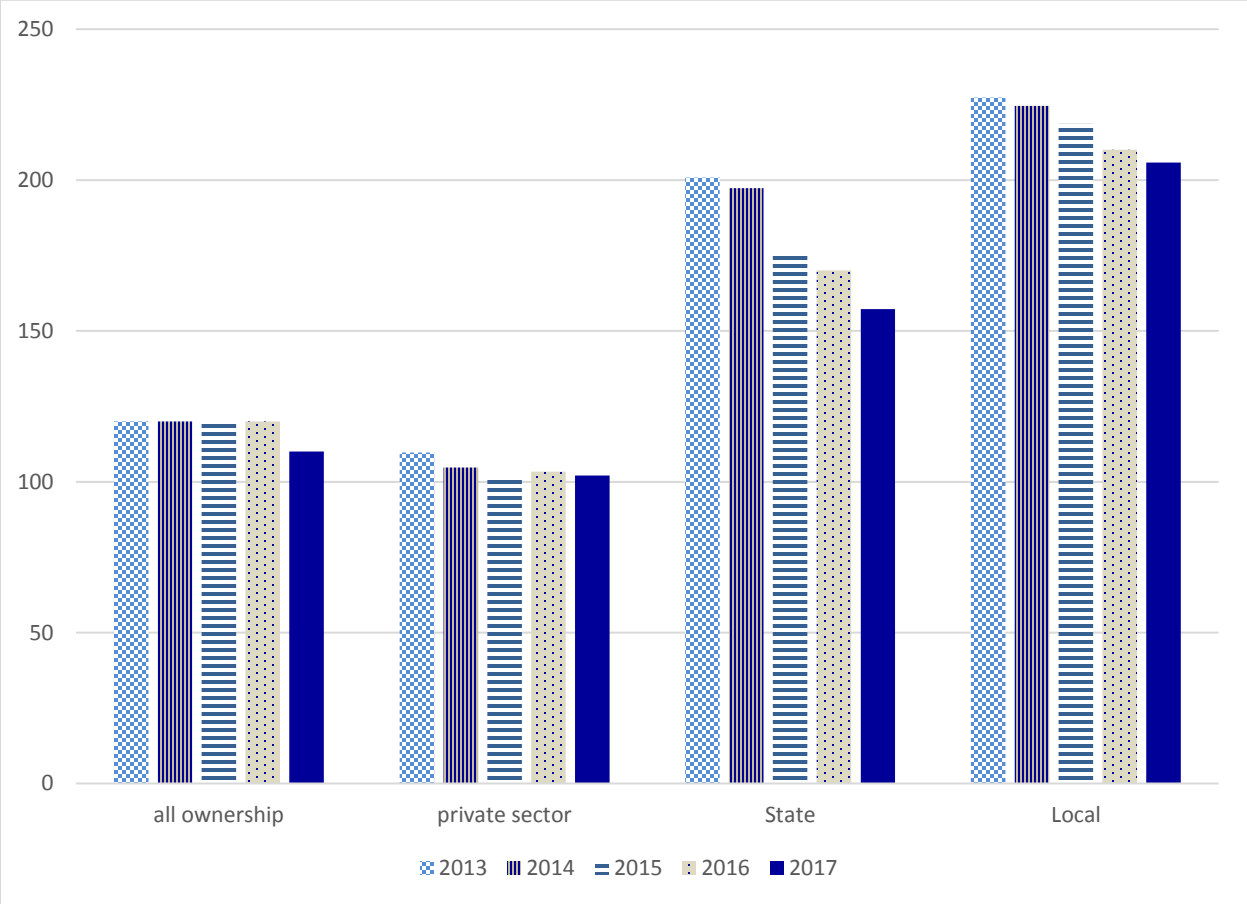
CHART 3. Cases of DAFW Injuries and Illnesses (Thousands) in California, by Sector, 2013–2017



[3] BLS refers to these findings as case and demographic statistics.

Public sector workers injuries are reported at a higher rate than private industry ones. In 2017, the reported rate of DAFW injury or illness among state and local government workers was 157 cases and 206 cases per 10,000 FTEs, respectively, while private sector employers experienced a rate of 102 cases per 10,000 FTEs (see Chart 4). Each of these sector rates was a reduction from 2016 and prior years.

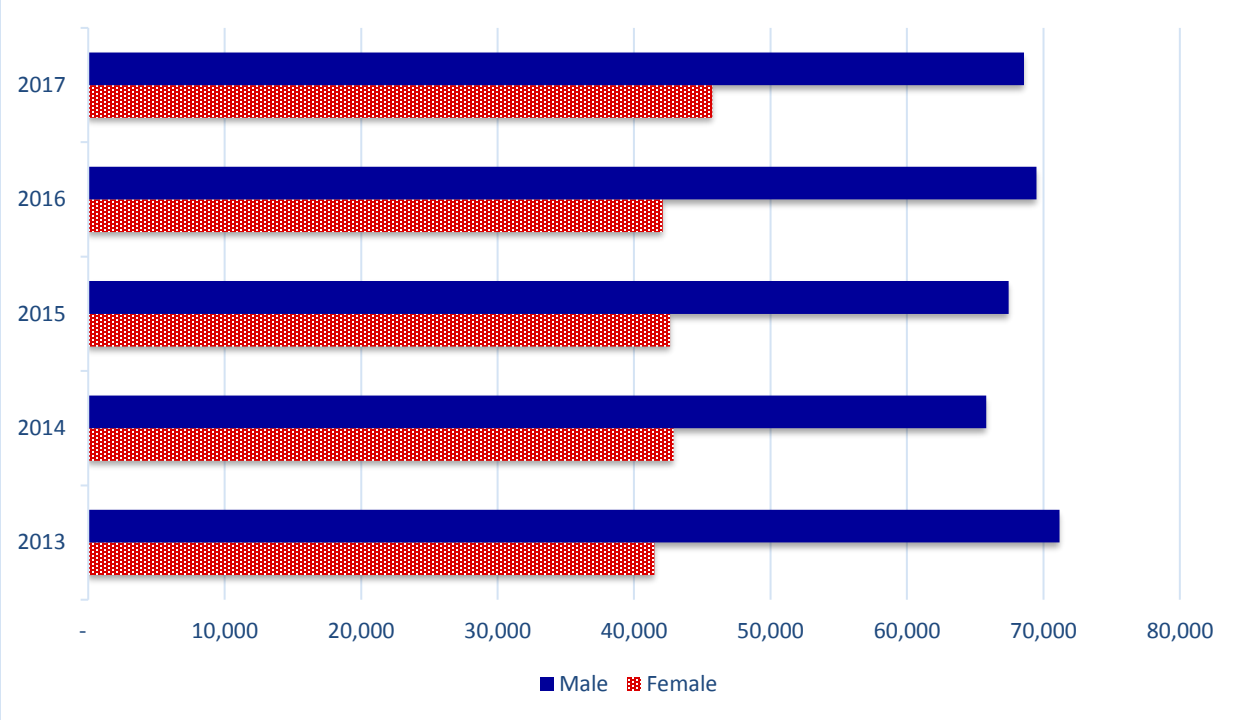
CHART 4. Incidence Rates of DAFW Injuries and Illnesses (Cases per 10,000 FTEs) in California, by Sector, 2013–2017



Gender

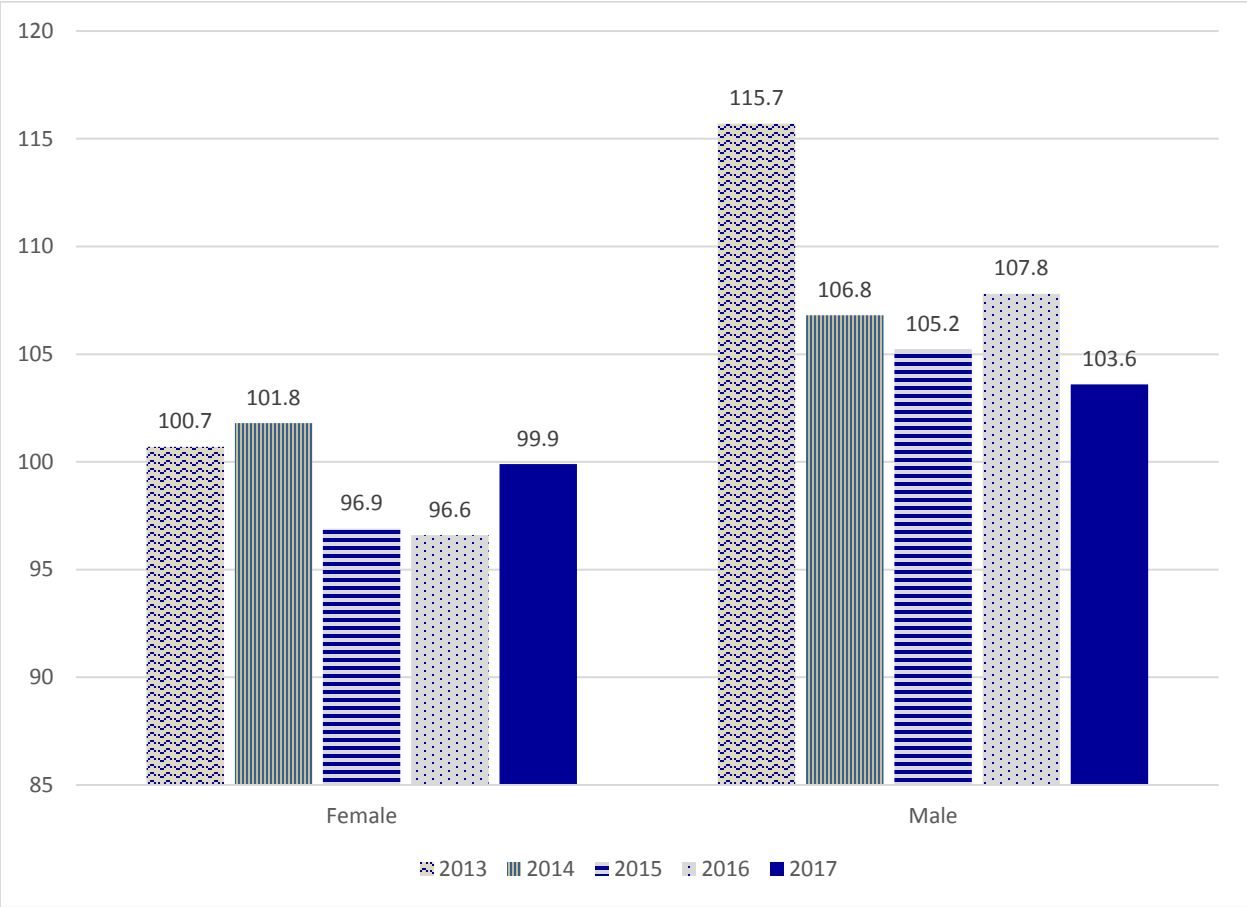
California's private sector employment (September 2017) is 55 percent male and 45 percent female.[4] Reported Occupational injuries among men are consistently more prevalent and have a higher rate of injury per 100 FTEs than female counterparts in the private sector. In 2017, male workers accounted for the majority of reported DAFW cases (62 percent), similar to their contributing share (60 percent) in 2015 and 2014 (see Chart 5). In 2017, the injury and illness incidence rate per 100 FTEs was over 11 percent higher among males than females (see Chart 6).

CHART 5. Reported DAFW Work Injuries and Illnesses in California's Private Sector, by Gender, 2013–17



[4] Source: https://www.labormarketinfo.edd.ca.gov/specialreports/CA_Employment_Summary_Table.pdf. Derived from Bureau of Labor Statistics, Current Population Survey, Employment Summary Tables

CHART 6. Incidence Rates (Cases per 100 FTEs): Reported DAFW Work Injuries and Illnesses in California's Private Sector, by Gender, 2013–17



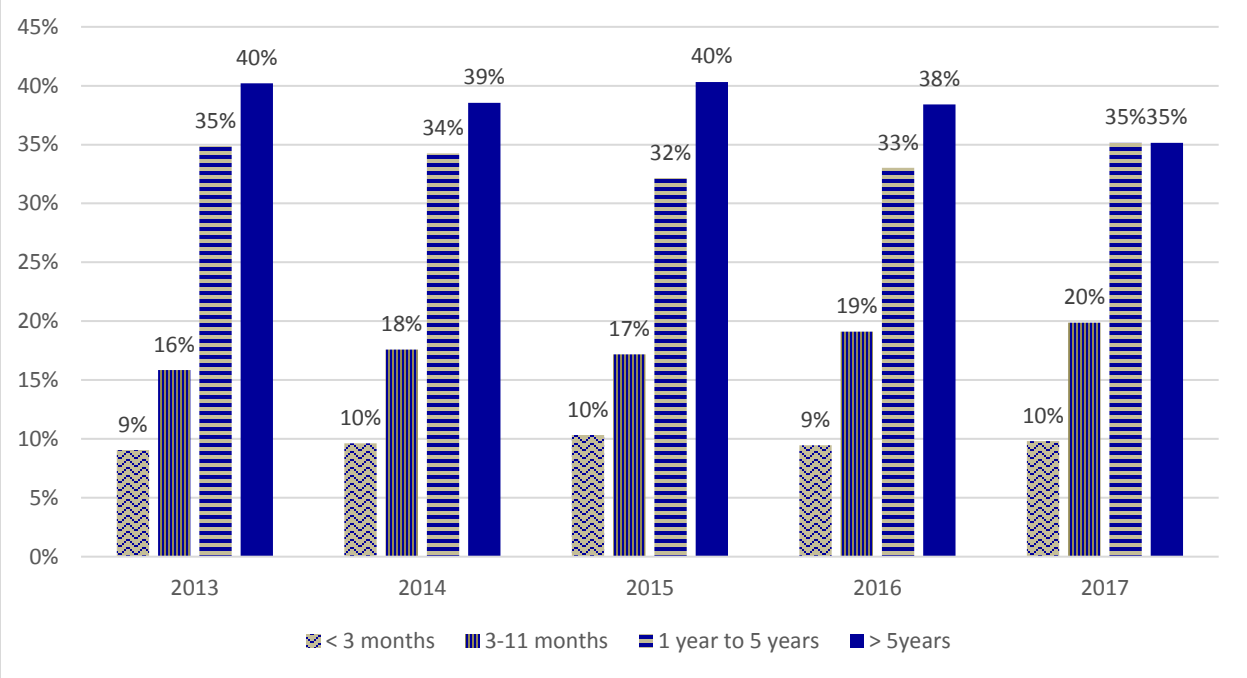
Race and Ethnicity

The classification of workers by race and ethnicity for SOII is based on the 1997 Standards for Federal Data on Race and Ethnicity as defined by the Office of Management and Budget. In 2002, SOII amended some of the race and ethnicity categories such that individuals may be categorized in more than one race or ethnic group. Race and ethnicity is one of the few data elements that are optional in SOII.[5] In 44 percent of the cases involving days away from work (DAFW) cases (up from 40% IN 2016), race and ethnicity were not reported in the 2017 SOII, limiting the ability to reliably interpret any findings. Among DAFW cases reporting race-ethnicity, nearly 60% were Hispanic workers.

Length of Service with Employer

In 2017, 30 percent of reported DAFW work injuries in California's private industry occurred among workers with less than a year of tenure (see Chart 7).

CHART 7. Length of Service with Employer before Reported DAFW Work Injury or Illness in California's Private Sector, 2013-17



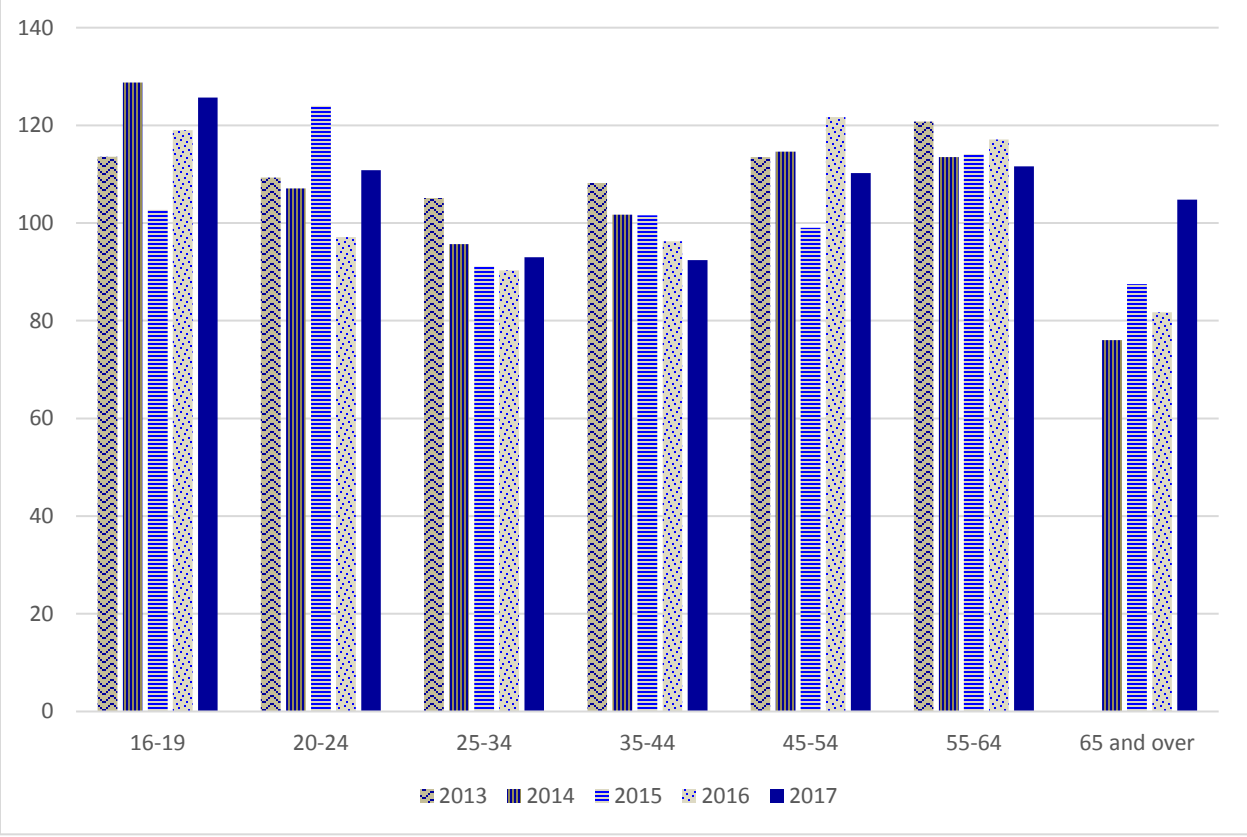
[5] See discussion of race and ethnicity in the BLS Handbook of Methods for SOII, p. 12. https://www.bls.gov/opub/hom/soii/pdf/soii.pdf

In Construction, 43 percent of workers injured on the job were in their first year of work. At goods-producing firms in the private sector, 35 percent of DAFW injuries and illnesses occurred within a year of hire. In manufacturing, the number was 25 percent. Information service workers experienced the lowest percentage of DAFW injuries in their first year of work, at 15 percent.

Age

Chart 8 shows the incidence rate of DAFW occupational injury and illness cases in California's private sector by the age of the worker for 2013–2017. The highest private sector injury and illness incidence rate in 2017 is among workers (FTEs) ages 16 to 19 years old. At the other end of the age range, the DAFW rate for workers ages 65 and older (which was the lowest rate in 2016) grew substantially in 2017.

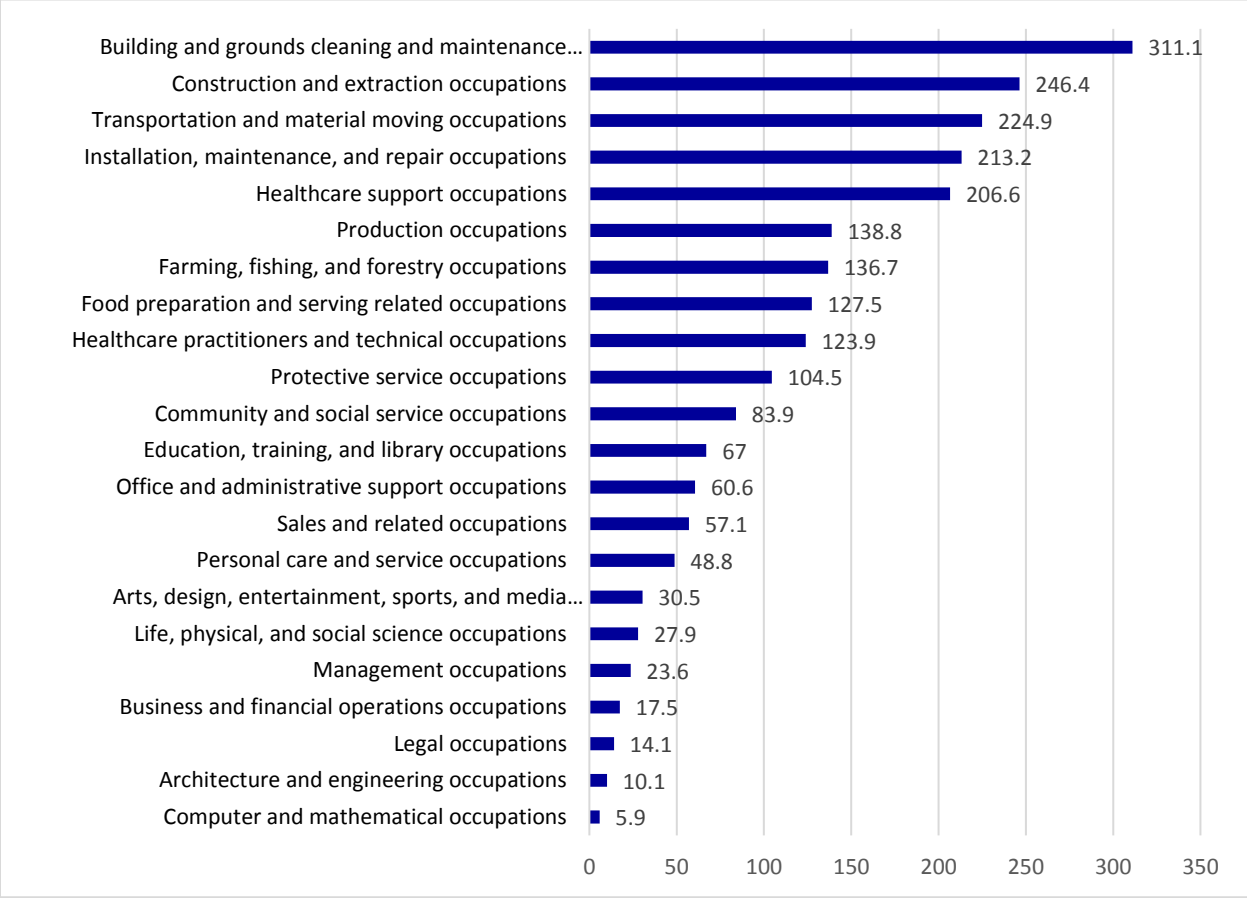
CHART 8. Incidence Rates (Cases per 10,000 FTEs) by Age for DAFW Work Injuries and Illnesses in California's Private Sector, 2013–2017



Occupation

In 2017, private sector occupations involving building and grounds maintenance, construction and extraction, transportation and material moving and installation and repair had the highest incidence rates for DAFW cases (see Chart 9).

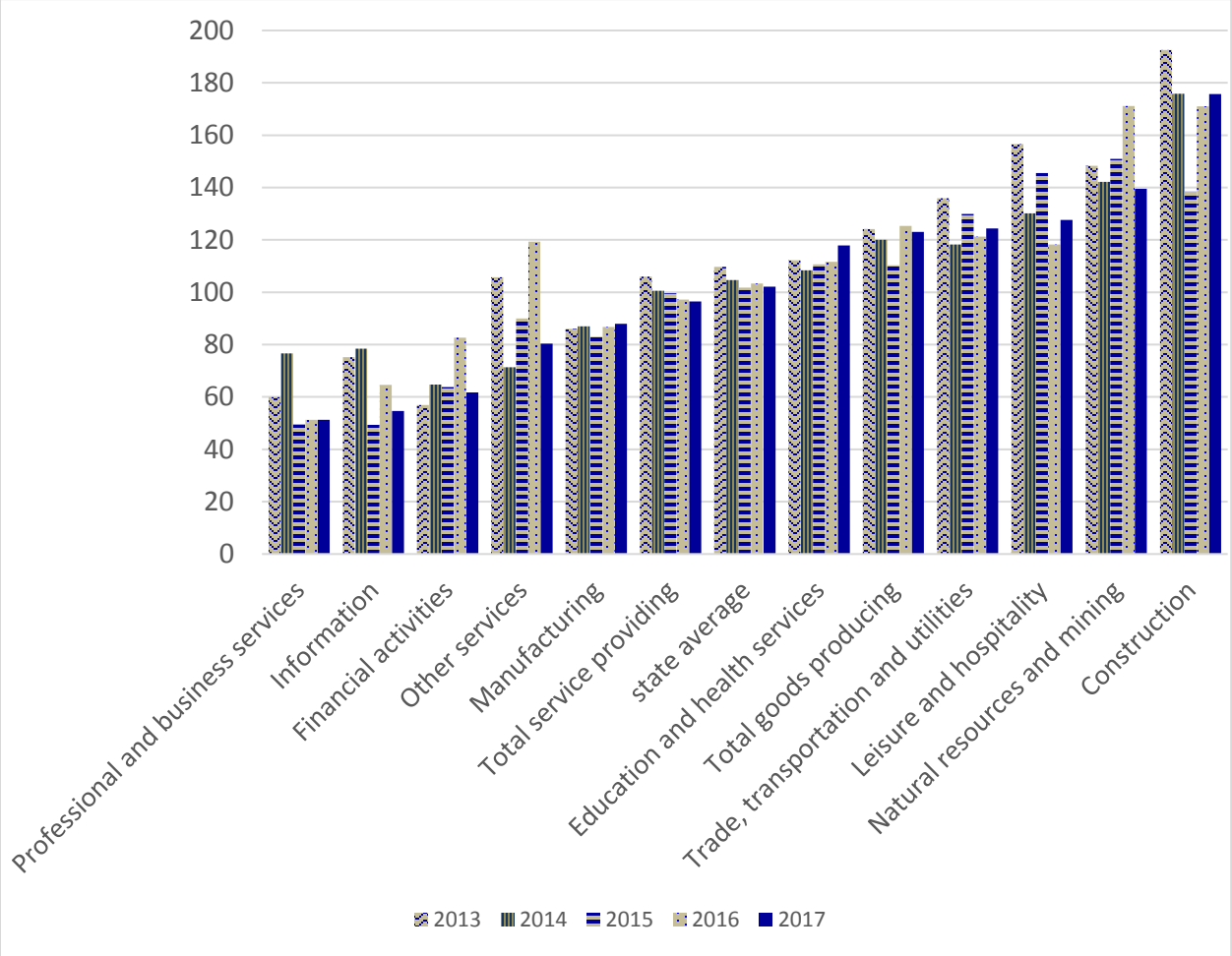
CHART 9. Incidence Rate (Cases per 10,000 FTEs) of DAFW Nonfatal Occupational Injuries and Illnesses in California's Private Sector, by Major Occupational Group, 2017

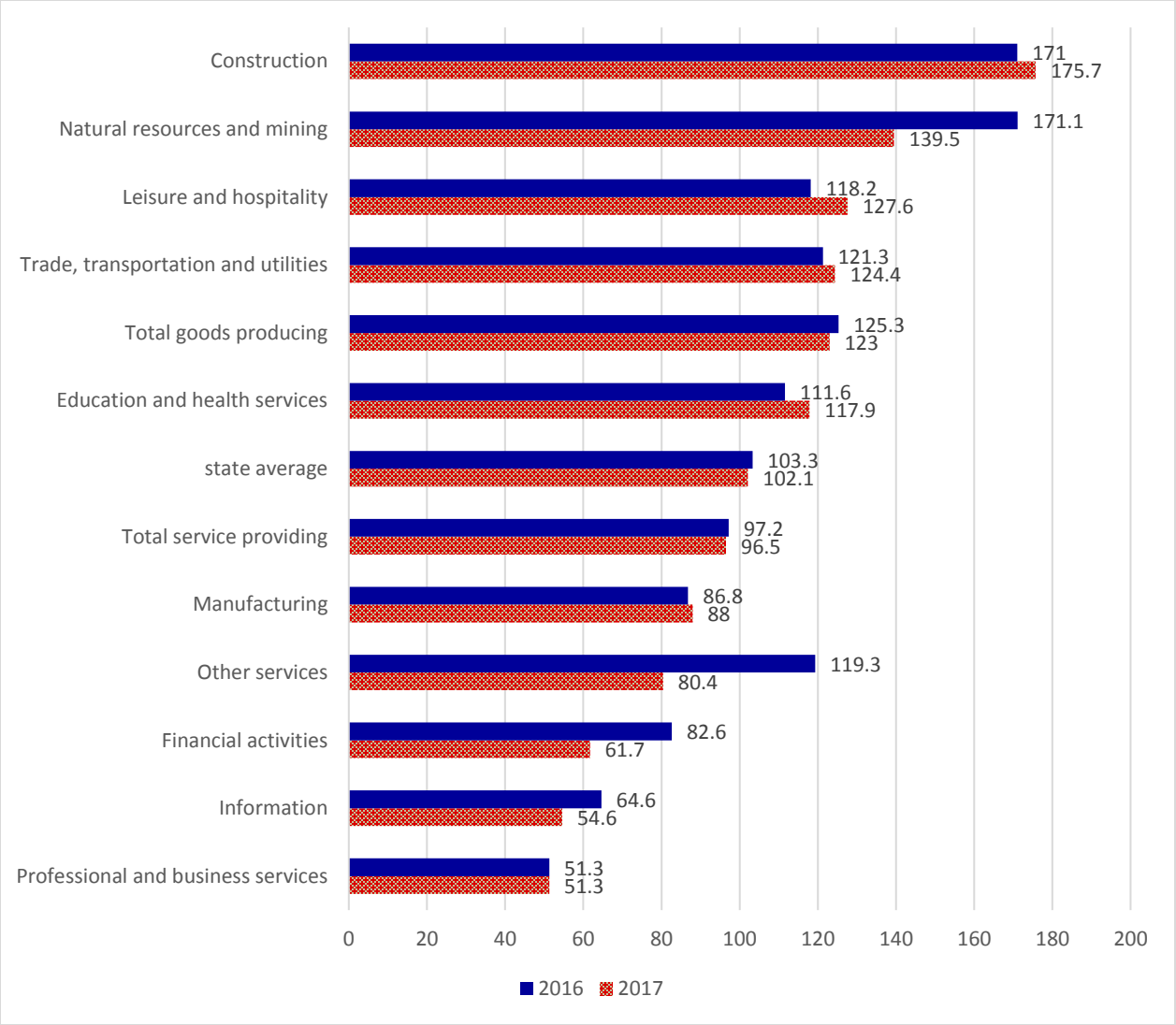


Industry

Every year about one in 100 California private sector workers suffer workplace-related illnesses or injuries that result in days away from work (DAFW). Natural Resources and Mining (a category dominated by agricultural work in California), and Construction are two private sector industries with the highest reported DAFW injury and illness incidence rates. In addition, Trade and Transportation, Leisure and Hospitality, and Education and Health Services are other private sector industries that exceed the statewide average incidence rate (see Chart 10). Other Services (including waste management, janitorial and temporary agencies) showed a substantial drop in these cases between 2016 and 2017.

CHART 10. Incidence Rate (Cases per 10,000 FTEs) of DAFW Nonfatal Occupational Injuries and Illnesses in California's Private Sector, by Major Industrial Group, 2013-17

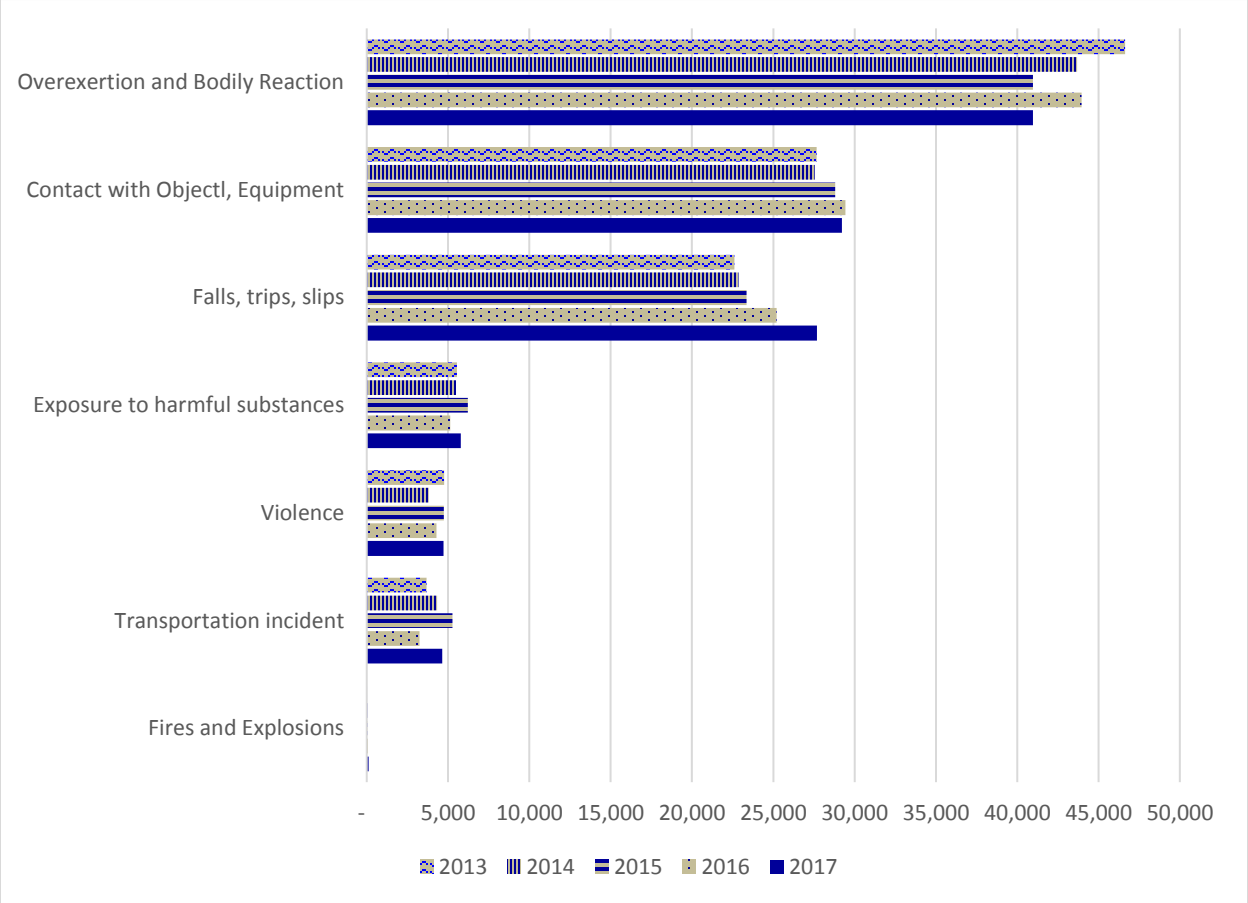



Construction
171
175.7
Natural resources and mining
171.1
139.5
Leisure and hospitality
118.2
127.6
Trade, transportation and utilities
121.3
124.4
Total goods producing
125.3
123
Education and health services
111.6
117.9
state average
103.3
102.1
Total service providing
97.2
96.5
Manufacturing
86.8
88
Other services
119.3
80.4
Financial activities
82.6
61.7
Information
64.6
54.6
Professional and business services
51.3
51.3
0
20
40
60
80
100
120
140
160
180
200
2016
2017

Event/Exposure of Injury and Illness

As in prior years, the highest number of DAFW work injuries among private sector workers had an event or exposure of overexertion and bodily reaction, by contact with an object or piece of equipment, and by falls, trips and slips. Other events in DAFW work injuries and illnesses included exposure to harmful substances or environments, workplace violence and transportation incidents (see Chart 11).

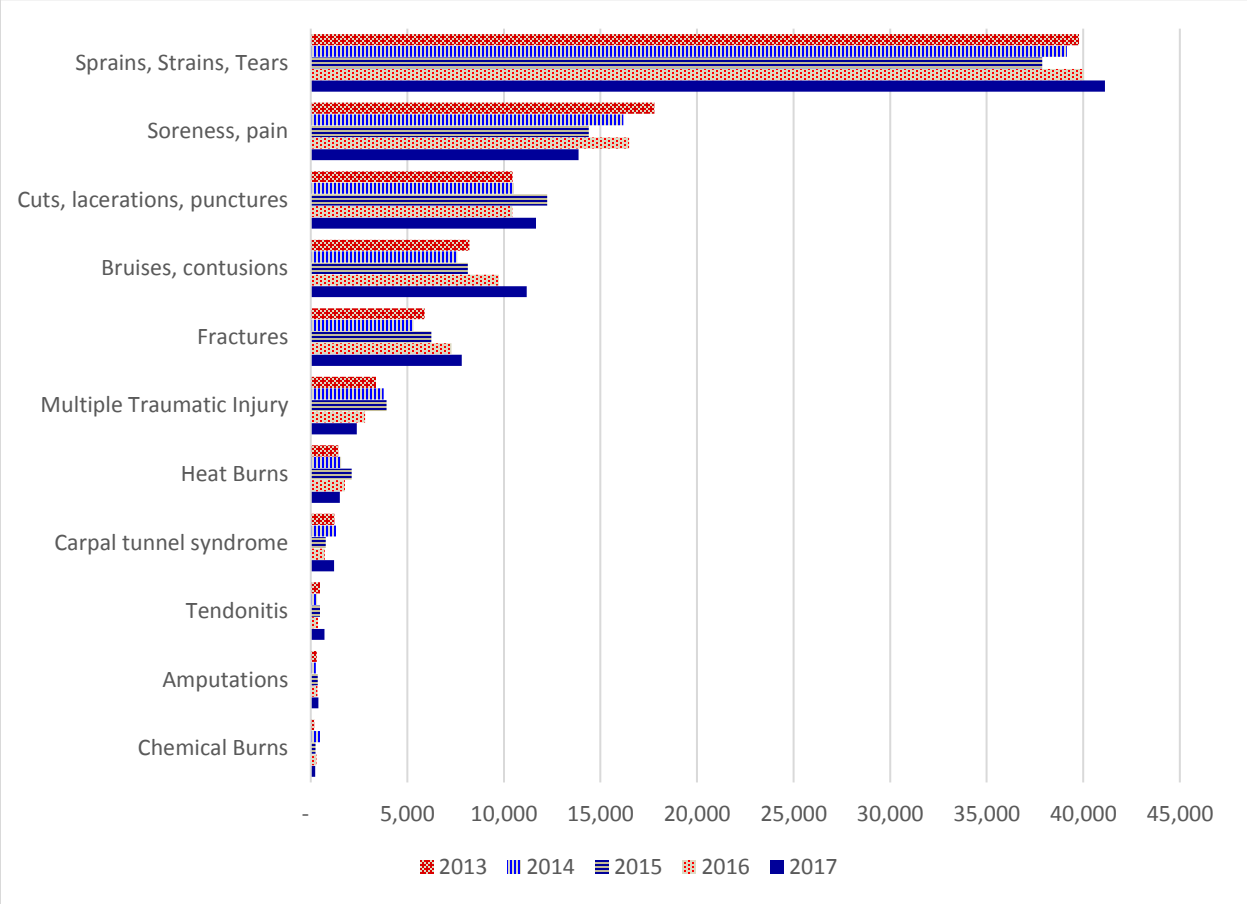
CHART 11. Event and Exposure of DAFW Work Injuries and Illnesses in California's Private Sector, 2013-17



Nature of Injury and Illness

Sprains, strains and tears are the leading causes of private sector DAFW injuries and illnesses, followed by soreness and pain, cuts and lacerations, and bruises (see Chart 12).

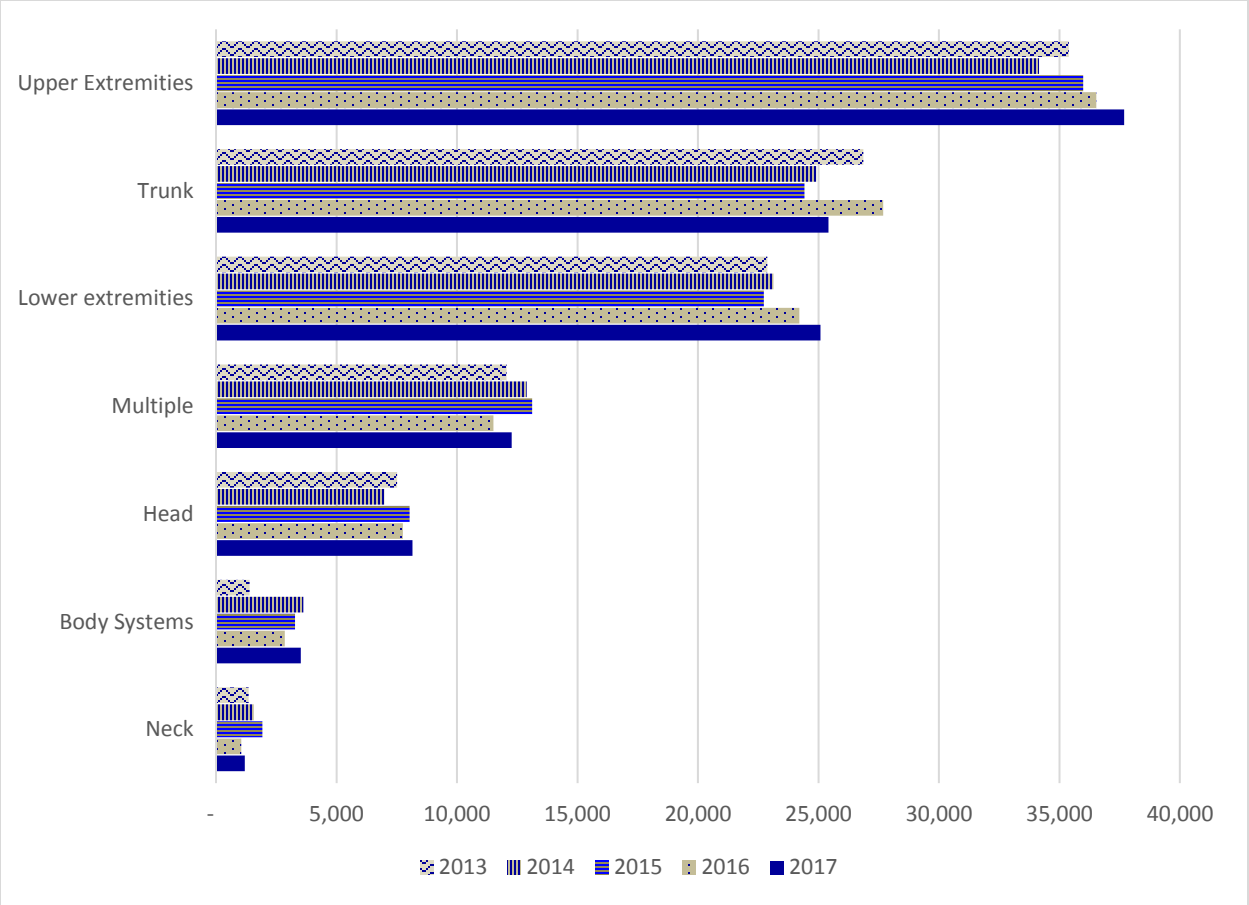
CHART 12. Numbers of DAFW Work Injuries and Illnesses by Nature of Injury, California's Private Sector, 2013-17



Part of the Body Injured

Consistent with prior years, the upper extremities, trunk, and lower extremities were the body parts with the highest number of private sector DAFW injuries and illnesses reported in 2017 (see Chart 13).

CHART 13. Number of DAFW Injuries and Illnesses by Part of Body Injured in California's Private Sector, 2013-17



Conclusion

This brief summarizes and updates reported occupational injury and illness data from the California SOII program for 2017. The annual survey is jointly administered by the U.S. Department of Labor, BLS and the California Department of Industrial Relations' OPRL. It is compiled from surveys completed by a representative sample of California employers and based upon data required to be collected under the Occupational Safety and Health Act (OSHA). Data for California for 2017 are posted online, including detailed summary tables as well as case and demographic data for private and public sector employers. While this report includes some data on public sector workers, much of the analysis focuses on the private sector.

The number and incidence rates of reported occupational injuries and illnesses in 2017 remain at levels markedly lower than those a decade earlier. Counts and the incidence rate of injuries and illnesses are stable compared to the prior year.

Three in ten workers disabled from work injury or illness that involved days away from work in private industry in 2017 were new hires with tenure of less than a year.

The major occupational groups with the highest incidence rates (cases per 10,000 FTEs) in 2017 were building and grounds maintenance workers, construction and extraction trades, transportation and material moving occupations, and installation and repair occupations..

The industrial categories with the highest incidence rates in 2017 were natural resources and mining (a category dominated by agricultural work in California) and construction.

The survey indicates that private sector workers tend to suffer more sprains, strains, and tears than other types of injury. The most prevalent events or exposures resulting in injuries among private sector workers are overexertion and bodily reaction, contact with an object or piece of equipment, and falls, trips and slips.

Appendix: SOII Methodology

Estimates for the California SOII survey are derived from a statistical sample of employers in the state.[6] The SOII program is administered by the US Bureau of Labor Statistics in cooperation with participating state agencies. Surveyed employers report data as required by the OSHA Recordkeeping regulation (29 CFR 1904), using the OSHA 300 Log. See SOII methodology.

Additional background and methodological information regarding the BLS occupational safety and health statistics program can be found in Chapter 9 of the BLS Handbook of Methods.

According to the BLS, the data are used to identify and correct hazards in the workplace. National and state policy makers use the survey as an indicator of the occupational safety and health conditions across industries and kinds of workers. OSHA uses the statistics to help determine where additional measures are needed to improve safety programs and to gauge the effectiveness in reducing work-related injuries and illnesses. Both labor and management use the estimates to design and evaluate safety programs. Other users include insurance carriers involved in workers' compensation, industrial hygienists, manufacturers of safety equipment, researchers, and others concerned with job safety and health.

The BLS has long acknowledged that some conditions that often are difficult for employers to relate to the workplace are not adequately recognized and reported during a calendar year (for example, long-term latent illnesses) and are believed to be understated in SOII illness measures. Following several studies in the mid-2000s questioning the completeness of SOII injury and illness counts, the BLS began internal research in 2007 and, at the request of Congress, established an ongoing research program. Initial research conducted between 2009 and 2012 found that the SOII failed to capture some cases but could not determine the magnitude or leading cause of an undercount. Researchers determined that the ability to match injury and illness data across different data sources was affected by various factors, such as establishment type, the time of case filing, and the type of injury. The BLS initiated additional research from 2012 to 2015 that included interviews with employers in four states to learn more about their injury and illness recordkeeping practices and a multiyear match of SOII data to workers' compensation records to analyze matching trends over time. BLS has funded a nationwide retrospective survey with SOII respondents to learn more about their recordkeeping practices and timing issues that may negatively affect injury and illness reporting to the SOII and continues to conduct exploratory research on the collection of occupational injury and illness data directly from employees. For more information on undercount research, please see www.bls.gov/iif/undercount.htm. For updated discussion of these challenges, also see Report of the National Academy of Sciences, Engineering and Medicine, A Smarter National Surveillance System for Occupational Safety and Health in the 21st Century.

[6] In survey research, it is almost never practical to measure the entire population. Estimates serve to quantify the uncertainty associated with sampling in a survey and small differences may not be statistically significant.